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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/880,834	06/15/2001	David A. Dalman	358362001101	7037

7590 06/04/2003

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McLEAN, VA 22102

EXAMINER

COLE, ELIZABETH M

ART UNIT	PAPER NUMBER
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1771

DATE MAILED: 06/04/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/880,834

Applicant(s)

DALMAN ET AL.

Examiner

Elizabeth M Cole

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 28 March 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-14 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-14 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ 6) ☐ Other: _____

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1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 3/28/03 has been entered.

2. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

3. Claims 1-10, 13-15 are rejected under 35 U.S.C. 102(e) as being anticipated by Weber et al, U.S. Patent No. 5,233,821. Weber et al disclose fabrics containing polybenzazole fibers. Claims 1, 13 and 15 are therefore anticipated.

The PBO polymers disclosed by Weber et al contain the claimed mer units, (col. 2, line 18 et seq). Claims 2-7 are therefore anticipated by Weber et al.

The fibers are usually collected into yarns prior to making a fabric, (col. 5, lines 9-10_ Claim 8 is therefore anticipated by Weber et al.

The benzazole polymer fibers may be combined with a cotton, polyester, nylon or rayon fibers. (col. 6, lines 18-20). Therefore claims 9 and 10 are anticipated by Weber.

Weber et al teach a vest made from the PBO fabric, (claims 13 and 15). Therefore, these claims are anticipated.

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The fibers may have a denier of 50-2000 denier which encompasses the claimed range.

See col. 5, lines 22-30.

4. Claims 11 and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Weber, Jr. et al in view of Dumbar et al, U.S. Patent No. 5,119,512. Weber discloses fabrics containing PBO fibers as set forth above. Weber differs from the claimed invention because Weber does not disclose incorporating the fibers into a matrix resin. Dumber teaches that cut-resistant fibers which are formed into fabrics suitable for use as protective garments may be impregnated with a matrix resin. See col. 4, lines 20-31 and col. 6, lines 54-65. Dumber teaches that coating the fabric helps to protect the fibers and provide an additional physical barrier to the fabric during use. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have impregnated the fabric of Weber as taught by Dumbar. One of ordinary skill in the art would have been motivated to impregnate the Weber fabric in order to protect the fabric as taught by Dumbar.

5. Applicant's arguments filed 3/28/03 have been fully considered but they are not persuasive. Applicant argues that Weber does not teach a ballistic resistant article but rather a cut resistant article. However, this argument is not persuasive because the material of Weber would necessarily have at least some ballistic resistance. Support for this presumption is found in the fact that both Weber and the instant claims recite the same materials and the same structures. Applicant argues that typical ballistic resistant materials are made of filaments or an alternate laminate of unidirectional filament sheet while cut resistant garments are typically made of a felt or

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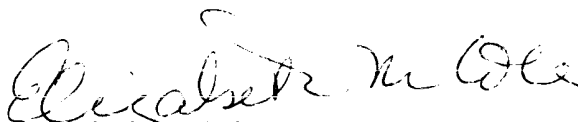
a cloth using discontinuous fibers. However, the instant claims merely recite a fabric and are not specific as to the structure of the fabric. Additionally, Weber discloses forming the PBO fibers into fibers or yarn which may be knitted, braided, woven or formed into non woven fabrics by itself, or which may be knitted, braided, woven or nonwoven with other fibers to form fabrics. Therefore, since Weber discloses the same material as is claimed, namely a fabric made up of a plurality of PBO fibers wherein the denier is no greater than 500, it is reasonable to presume that the Weber fabric would inherently have at least some ballistic resistance.

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Elizabeth M. Cole whose telephone number is (703) 308-0037. The examiner may be reached between 6:30 AM and 5:00 PM Monday through Thursday.

Mr. Terrel Morris, the examiner's supervisor, may be reached at (703) 308-2414.

Inquiries of a general nature may be directed to the Group Receptionist whose telephone number is (703) 308-0661.

The fax number for official faxes is (703) 872-9310. The fax number for official after final faxes is (703) 872-9311. The fax number for unofficial faxes is (703) 305-5436.


Elizabeth M. Cole
Primary Examiner
Art Unit 1771

e.m.c
June 2, 2003